REMARKS

Claims 1-29 were pending at the time the Office Action was issued.

Claims 1, 5, 8, 12, 15, and 18-21 are currently amended.

Claims 2-4, 9-11, 16-17, and 232-29 are presently canceled.

Claims 30-33 are currently added.

Thus, claims 1, 5-8, 12-15, 18-21, and 30-33, of which claims 1, 8, 12, and 30 are independent claims, are currently pending.

Claim Rejections under 35 U.S.C. § 101

Claims 15 and 22 were previously rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claim 15, and claims 18-21 depending from claim 15, have been amended to recite computer-readable medium claims. Applicants submit that these amendments resolve the rejection of these claims under 35 U.S.C. § 101.

Claim 22 has been canceled, thereby rendering moot the rejection under 35 U.S.C. § 101 to this claim and claims depending from claim 22.

New claims 30-33 recite computer-readable medium claims which applicants believe are acceptable.

Accordingly, applicants respectfully request that any rejections under 35 U.S.C. § 101 be withdrawn against the pending claims.

Claim Rejections under 35 U.S.C. § 102

Claims 1-29 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,219,829 to Sivakumar et al. (hereinafter "Sivakumar"). Claims 2-4, 9-11, 16-17, and 22-29 have been canceled, rendering moot the rejections to these claims. As to the remaining claims, applicants respectfully traverse the rejections. Applicants have amended claims 1, 5, 8, 12, 15, and 18-21, and have added new claims 30-33 in place of claims 22-29 to clarify how the claims distinguish over the reference cited as well as any other references.

Claim 1 is not anticipated by Sivakumar. Claim 1, as amended, is reproduced below for the convenience of the Examiner:

> 1.   (Currently Amended)   A computer-readable medium having computer-executable components, comprising:
> a test case scenario object <u>configured to coordinate a test of a particular software object by specifying</u> that ~~comprises~~ test methods ~~that are arranged to test an electronic system~~ <u>to be included in the test;</u>
> <u>a test runtime object including a plurality of attributes and a test extraction engine configured to extract an ordered list of the test methods based on the attributes to control application of the test methods without modifying the test methods,</u> wherein<u>:</u>
> <u>the test extraction engine is configured to select and arrange</u> the test methods in a hierarchy that comprises a base class and subclasses, wherein each of the subclasses derives from the base class<u>;</u> ~~and~~ ~~wherein the principle of~~ inheritance is <u>selectively</u> applied to <u>the</u> test methods ~~method~~ <u>according to the attributes to determine if the test methods in each of the subclasses inherit from the base class</u> ~~in accordance with the arrangement of the methods within the hierarchy;~~ and
> a test harness that is arranged to provide system test services <u>to support the application of the ordered list of</u> ~~for~~ the test methods in the test of the particular software object.

Respectfully, claim 1 is not anticipated by Sivakumar for at least three reasons.

First, Sivakumar fails to recite either "a test case scenario object configured to coordinate a test of a particular software object" or "a test runtime object" separate from the test case

scenario object or a test harness. Sivakumar recites a system for testing software, but does not recite these limitations. Because Sivakumar fails to teach these limitations of claim 1, Sivakumar fails to anticipate claim 1.

Second, Sivakumar fails to teach "a test runtime object including a plurality of attributes and a test extraction engine configured to extract an ordered list of the test methods based on the attributes to control application of the test methods without modifying the test methods." Sivakumar does not teach an attribute based system that can be used to extract or order a list of test methods as recited in claim 1. In fact, as noted in the Office Action at Page 3, Sivakumar teaches a system that relies on an existing hierarchy: "Classes are executed in a hierarchical order with parent classes being executed before the descendants." (Sivakumar, Column 3, Lines 29-31). In addition, Sivakumar teaches nothing about "extracting an ordered list without modifying the test methods" themselves. Because Sivakumar does not teach that the ordered list is based on the attributes, without modifying the test methods, Sivakumar fails to anticipate claim 1.

Third, Sivakumar fails to teach that "inheritance is selectively applied to the test methods according to the attributes to determine if the test methods in each of the subclasses inherit from the base class." Applicants concede that Sivakumar mentions the concept of inheritance: "As is explained below, these rules may or may not be 'inherited' by the descendants." (Sivakumar, Column 3, Lines 42-43). However, nowhere does Sivakumar teach, or even suggest, how it is determined whether the rules applied to classes may or may not be inherited by subclasses. Because Sivakumar does not even address this concept, Sivakumar cannot anticipate what is

recited by claim 1. Accordingly, for these reasons, the rejection under 35 U.S.C. § 102(b) must be withdrawn against claim 1.

In addition, claims 5-7 apply additional limitations to claim 1 from which they depend and thus are patentable for at least the same reasons for which claim 1 is patentable. Moreover, Sivakumar fails to teach what claims 5-7 recite. For example, claim 5 recites a "test extraction engine is configured to use a comparison function that is defined within the attributes to modify the order of the test methods according to the attributes." Sivakumar fails to teach the use of such attributes, let alone a comparison function to modify the order of the attributes. Thus, claims 1 and 5-7 are not anticipated by Sivakumar and are in condition for allowance.

Claim 8 also is not anticipated by Sivakumar. Claim 8, as amended, is reproduced below for the convenience of the Examiner:

> 8. (Currently Amended) A method for automated testing, comprising:
> providing test methods that are arranged to test an electronic system;
> providing a test runtime object configured to use a plurality of attributes specified for a particular test to:
> extract from among arranging the provided test methods, the provided test methods being presented in a hierarchy that comprises a base class and subclasses, wherein each of the subclasses derives from the base class; and
> selectively apply applying the principle of inheritance to each of the extracted test methods according to the attributes method to determine which of the subclasses inherits from the base class in accordance with the arrangement of the methods within the hierarchy without modifying the test methods; and
> using a test harness to provide system test services for the test methods.

Respectfully, claim 8 is not anticipated by Sivakumar for at least two reasons. First, as previously described, Sivakumar fails to teach or suggest the use of "a test runtime object" separate from a test harness. Second, Sivakumar fails to teach the use of "a plurality of attributes" allowing the method of claim 8 to "selectively apply principle of inheritance to each

of the extracted test methods according to the attributes to determine which of the subclasses

inherits from the base class . . . without modifying the test methods." Again, Sivakumar fails to

teach or suggest anything about how inheritance is or is not applied to the subclasses, with or

without modifying the test methods. Thus, for at least these two reasons, Sivakumar fails to

anticipate claim 8. In addition, claims 12-14 apply additional limitations to claim 8 from which

they depend and thus are patentable for at least the same reasons for which claim 8 is patentable.

Moreover, Sivakumar fails to teach what claims 12-14 recite. Thus, claims 8 and 12-14 are not

anticipated by Sivakumar and are in condition for allowance.

Claim 15 also is not anticipated by Sivakumar. Claim 15, as amended, is reproduced

below for the convenience of the Examiner:

> 15.   (Currently Amended)   A <u>computer-readable medium</u>
> <u>having computer-executable components describing a</u> test automation system,
> comprising:
> a test case scenario object that <u>describes</u> ~~comprises~~ test methods ~~that are~~
> arranged to test an electronic system, wherein the test methods that are arranged
> in a hierarchy that comprises a base class and subclasses, wherein each of the
> subclasses derives from the base class<u>;</u>
> <u>a test runtime object configured to:</u>
> <u>extract the test methods described by the test case scenario object; and</u>
> <u>selectively apply a</u>~~, and wherein the~~ principle of inheritance ~~is applied to~~
> each <u>of the</u> test method <u>to determine whether the subclasses will inherit from the</u>
> <u>base class from which the subclasses are derived</u> in accordance with the
> arrangement of the methods within the hierarchy; and
> a test harness that is arranged to provide ~~system test services for~~ the test
> methods.

Respectfully, claim 15 is not anticipated by Sivakumar for at least two reasons. First, again as

previously described, Sivakumar fails to teach or suggest the use of a separate test case scenario

object, test runtime object, and test harness. Second, Sivakumar teaches nothing about

selectively applying the principle of inheritance. Thus, for at least these two reasons, Sivakumar

fails to anticipate claim 15. In addition, claims 18-21 apply additional limitations to claim 15

from which they depend and thus are patentable for at least the same reasons for which claim 15

is patentable. Moreover, Sivakumar fails to teach what claims 18-21 recite. For example,

Sivakumar fails to teach a test extraction engine that uses a comparison function that is defined

within the attributes to order the test methods as recited by claim 19. Thus, claims 15 and 18-21

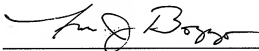are not anticipated by Sivakumar and are in condition for allowance.

New claims 30-33 also recite limitations that are neither taught nor suggested by

Sivakumar.

CONCLUSION

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicants at the telephone number provided below.

Respectfully submitted,

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